east Texas. Both leaves and acorns have been found in the Pleistocene of North Carolina.

PERSEA BORBONIA Spreng (?)

Somewhat doubtfully determined leaves of this species occur at this locality. In the recent flora it ranges from Virginia to Florida and Texas. It has not certainly been found fossil before but allied *Persea pubescens* (Pursh) Sargent has been found in the Pleistocene of North Carolina and Alabama. The separation of the two on the basis of leaves alone is attended with some uncertainties.

Explanation of Plate

Figs. 1–4. Brasenia schreberi Gmelin. Seeds × 4 from near Whitlock, Tenn.

Figs. 5–7. Hicoria ovata Britton, nat. size. Wicomico formation, 17th & K. Sts., Washington. 5. a nut, 6, 7. Outer and inner view of husks.

Figs. 8, 9. Pinus taeda Linné, nat size. From near Whitlock, Tenn. 8. A single scale from the outside, 9. Part of cone in matrix.

Figs. 10–13. Smilax (?) sp., × 4, from near Whitlock, Tenn.

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NATURE TRAILS AT WALKING CLUB CAMPS

RAYMOND TORRY

Among a large number of outdoor study groups, throughout the United States, and even in Europe and Asia, which have adopted the methods of Dr. Frank E. Lutz, Curator of Entomology at the American Museum of Natural History, in labelling natural exhibits "in place," on Nature Trails, are two of the largest of the walking clubs of the New York City metropolitan district, the New York Section of the Green Mountain Club and the New York Chapter of the Adirondack Mountain Club.

Nature Trails have been started at the Wyanokie Lodge, the gathering place of the New York Section of the Green Mountain Club, three miles west of Wanaque-Midvale, in Passaic County, on the Greenwood Lake division of the Erie Railroad; and at Camp Thendara, the Section's all year camp on Lake Tiorati, in the Harriman State Park, nine miles southwest of Bear Mountain.

The Wyanokie Lodge headquarters has long been a centre for nature study, under the inspiration and direction of Dr. Will S. Monroe, Honorary President of the New York Section of the Green Mountain Club, who established a fern garden there, laid out forty miles of trails, and maintained for ten years an annual bird census, in cooperation with the United States Biological Survey. The Lodge continues as a centre of outdoor instruction, particularly in botany, and is the scene of weekly nature guidance outings, under the general direction of William Gavin Taylor, assisted by many members of the section who are versed in the natural sciences.

The Wyanokie Nature Trail was established December 12, at a meeting of the Green Mountain Club at Wyanokie Lodge, to which members of the Torrey Botanical Club were also invited. For the beginning, trees and shrubs were identified according to their winter aspects, and some geological features were labelled. Linen tags, two by four inches were used, inscribed in ordinary typewriter ribbon or with indelible ink. The results of the winter's exposure upon these labels will determine if they may be considered as reasonably persistent, or if some methods of waterproofing, or perhaps the use of metal labels, may be adopted. Among those who gave useful advice and helped in the identifications at the inauguration of this trail were Dr. Arthur H. Graves, of the Brooklyn Botanic Garden, secretary of the Torrey Botanical Club; Dr. B. T. Butler, of the College of the City of New York, who named geological features, and Major Barrington Moore, Secretary of the Council on Wild Life, National Parks and Forests, who identified the trees.

At Camp Thendara, a similar Nature Trail was begun in December, with identification of trees and shrubs from bark, buds, persistent fruits, etc., and of geological features. This is a particularly rich region for ferns, which, with other herbaceous plants, will be added to the "exhibits" as the spring advances.

At the Adirondack Mountain Club headquarters in the Harriman Park, Camp Nawakwa, on Lake Sebago, three miles east of Tuxedo, a Nature Trail, primarily for winter botany and geology, was established in December, and will be extended as the changing seasons permit, under the direction of A. T. Shorey, a Boy Scout troop leader, of Brooklyn, who has been active in the nature study and trail making program of the Scouts at their

headquarters at Kanohwahke Lakes, in the Harriman Park. An interesting feature of plant life at both Camp Nawakwa and Camp Thendara, each on a new artificial lake, with shore lines cut out of the forest, is the progressive adaptation to the new shore of moisture loving plants which formerly grew in the swamp now filled by the lake, and are now forced to move out to its boundaries.

Similar nature trails are proposed by Major W. A. Welch, general manager of the Palisades Interstate Park, in the vicinity of four new over-night shelters which he will build on the trails laid out during the past six years by volunteer workers from the New York City walking clubs in the Harriman Park.

WALKING WITH AN OBJECT

Forty Wild Flowers Worth Hunting

Norman Taylor

For nearly a hundred years nature enthusiasts have collected plants within the vicinity of New York, and many of these specimens have found their way into the herbarium of the Torrey Botanical Club, which is at the New York Botanical Garden, and into that of the Brooklyn Botanic Garden. The latter collections have been studied with a view to publishing a "Flora of Long Island," to be issued by the Brooklyn Botanic Garden, as soon as more field work has been completed.

The work of John Torrey in the local area resulted in his publishing in 1819 a "Catalogue of Plants Growing Spontaneously Within Thirty Miles of the City of New York," now a very rare book. Many of the specimens upon which he based that work are scarce in the region. In 1915 the writer's "Flora of the Vicinity of New York" was published by the New York Botanical Garden. This attempted to bring together all the old records, specimens and notes, and perhaps its greatest weakness is that much of it necessarily had to be based on specimens collected long ago. Some of the local plants are in any case rare. Some may be merely undetected from particular localities. Others are uncommon in some parts of the area, but common elsewhere. Much remains to be done in increasing our knowledge of the present distribution of local wild flowers. A distinct